

SHIPRADE

S-DEFENCE-PAN

S-Defence-Pan Technical Data Sheet (1)

Characteristics	Test Method	Tested Value			Required Value		
Thickness (mm)	EN 14323	16	19	25	< 15	15 - 20	> 20
		15.9	19.2	24.7	+/- 0.5	+/- 0.5	+/- 0.5
Density (kg/m ³)	EN 323	10	19	25	8 – 13 mm	14 – 20 mm	20 – 25 mm
		710	690	670	670 +/- 7%	650 +/- 7%	640 +/- 7%
Wear Resistance (Revolutions)	EN 14323	Class	IP	Class			IP
		1	18	1 – Print Décor			< 50
		3A	158	3A Print Décor + O/L Solid < 120			≥ 150
		3B	280	3B Solid ≥ 120 gsm			≥ 250
Scratch Resistance (N)	EN 14323	2.5			1.5 ⁽¹⁾		

Characteristics	Test Method	Tested Value			Required Value		
Resistance to Staining (Level)	EN 14323	≥ 3			≥ 3 Group 1 & 2		
Resistance to Cracking (Level)	EN 14323	≥ 3			≥ 3 @ 70°C 24 Hours		
Light Fastness (Level Grey Scale)	EN 438.2.27	4			≥ 4		
Swelling After 24 Hours (%)	EN 317	12%			Max. 15% for 15 mm		
Flatness (mm / m)	EN 14323	8 mm	19 mm	25 mm	< 15 mm	15 - 20 mm	> 20 mm
		2	2	2	$\leq 2^{(2)}$	$\leq 2^{(2)}$	$\leq 2^{(2)}$
Screw Extraction (N)	EN 320	From the Surface : 690 From the Side : 410			From the Surface : 700 +/- 10% From the Side : 400 +/- 10%		
Formaldehyde Content (mg / 100 g)	EN 120	E1			E1		

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S-Defence-Pan Technical Data Sheet (2)

Characteristics	Test Method	Tested Value	Required Value
Antibacterial Activity^{(3),(4)}	JIS Z 2801 : 2012		
	Staphylococcus Aureus (DSM 346) ⁽⁵⁾	$R^{(6)} = 4.2$	$R^{(6)} \geq 2.00$
	E. Coli (DSM 1576) ⁽⁵⁾	$R^{(6)} = 4.5$	$R^{(6)} \geq 2.00$
	ISO 22196 : 2011		
	Staphylococcus Aureus (DSM 346) ⁽⁵⁾	$R^{(6)} = 4.2$	$R^{(6)} \geq 2.00$
	E. Coli (DSM 1576) ⁽⁵⁾	$R^{(6)} = 4.5$	$R^{(6)} \geq 2.00$
Chlorine Surface Resistance	Producer Internal Test Method	See Table below	---
Hydrogen Peroxide Surface Resistance	Producer Internal Test Method	See Table below	---
Antiseptics & Sanitizers Surface Resistance	Producer Internal Test Method	See Table below	---

Remarks:

- (1) Not included Pearlescent decors
- (2) Flatness is valid for equally balanced weight of decorative papers on both sides
- (3) The Antibacterial activity is tested with 2 different types of Bacteria and according to 2 standards . For each test method of bacteria , test reports are available upon request .
- (4) S-Defence-Pan is available in 1 surface : Dogal . For any other surface please ask sales team .
- (5) DSM Number refers to a specific accession number assigned to bacterial strains and other microorganisms in the DSMZ (Deutsche Sammlung von Mikroorganismen und Zellkulturen)
- (6) $\log_{10}$ reduction from initial CFU cm^{-2}

Chlorine Surface Resistance Test⁽⁶⁾ :3096⁽¹⁾ / 4596⁽²⁾ ; 25 mm⁽³⁾ ; Dogal ; 1000 ppm concentration⁽⁴⁾

Duration ⁽⁵⁾ Decor	1 Hour	2 Hours	4 Hours	8 Hours	12 Hours	24 Hours
3096 ⁽¹⁾ Rating Scale	0	0	0	0	0	0
4596 ⁽²⁾ Rating Scale	0	0	0	0	0	0

3096⁽¹⁾ / 4596⁽²⁾ ; 25 mm⁽³⁾ ; Dogal ; 10,000 ppm concentration⁽⁴⁾

Duration ⁽⁵⁾ Decor	1 Hour	2 Hours	4 Hours	8 Hours	12 Hours	24 Hours
3096 ⁽¹⁾ Rating Scale ⁽⁷⁾	0	0	0	0	0	0
4596 ⁽²⁾ Rating Scale ⁽⁷⁾	0	0	0	0	0	0

Remarks:

- (1) 3096 Plain décor
- (2) 4596 Printed décor
- (3) 25 mm pressed in Dogal finish
- (4) 1000 and 10,000 ppm water base solutions
- (5) Duration according to Tables ; Test method according to the below instructions ; Rating Scale according to the below instructions
- (6) Test method :
 - With a pipette drop 5 drops from the tested concentration and cover with a laboratory glass cover
 - After the required duration , remove the glass cover , rains with water and wiper with a dry cotton cloth
 - Examine the tested samples according to the below rating scale and advice with a test report
- (7) Rating Scale : Level 0 – No Detectable Change for naked eye
 Level 1 – Slight Change in Color or Gloss or surface structure
 Level 2 – Slight Surface Etching or Severe Staining
 Level 3 – Pitting / Cracking / Swelling / Erosion of the surface
 Level 4 - Obvious & Significant Deterioration of the surface

Hydrogen Peroxide Surface Resistance Test^(1,5) :3103⁽²⁾ ; 25 mm Dogal⁽³⁾

Duration ⁽⁴⁾ Decor	12 Hours	24 Hours
3103 ⁽²⁾ Rating Scale ⁽⁶⁾	0	0

Açıklamalar:

- 1) Hydrogen Peroxide 30% (H₂O₂ 30%)
- 2) 3103 Plain décor
- 3) 25 mm pressed in Dogal finish
- 4) Exposure Duration according to Tables .
- 5) Test method :
 - With a pipette place 5 drops from the tested H₂O₂ 30% and cover with a laboratory glass cover
 - After the required duration , remove the glass cover , rains with water and wiper with a dry cotton cloth
 - Examine the tested samples according to the below rating scale and advice with a test report
- 6) Rating Scale: Level 0 – No Detectable Change for naked eye
 Level 1 – Slight Change in Color or Gloss or surface structure
 Level 2 – Slight Surface Etching or Severe Staining
 Level 3 – Pitting / Cracking / Swelling / Erosion of the surface
 Level 4 – Obvious & Significant Deterioration of the surface

Antiseptics & Sanitizers Surface Resistance Test^(1,8) :3103⁽²⁾ ; 25 mm Dogal⁽³⁾

Duration ⁽⁴⁾ Reagent	12 Hours Rating ⁽⁹⁾	24 Hours Rating ⁽⁹⁾
Benzethonium Chloride 2%⁽⁵⁾	0	0
Domiphen Bromide 4%⁽⁶⁾	0	0
Benzalkonium Chloride 4%⁽⁷⁾	0	0
Isopropyl Alcohol (IPA 70%)	0	0

Remarks:

- 1) The surface resistance is tested against common Antiseptics and Sanitizers available and common in the market
- 2) 3103 Plain décor
- 3) 25 mm pressed in Dogal finish
- 4) Exposure Duration according to Tables .
- 5) Benzethonium Chloride 2% (Antiseptic & Disinfectant)
- 6) Domiphen Bromide 4% (Antiseptic)
- 7) Benzalkonium Chloride 4% (Antiseptic)
- 8) Test method :
 - With a pipette place 5 drops from the tested reagent and cover with a laboratory glass cover
 - After the required duration , remove the glass cover , rains with water and wiper with a dry cotton cloth
 - Examine the tested samples according to the below rating scale and advice with a test report
- 9) Rating Scale: Level 0 – No Detectable Change for naked eye
 Level 1 – Slight Change in Color or Gloss or surface structure
 Level 2 – Slight Surface Etching or Severe Staining
 Level 3 – Pitting / Cracking / Swelling / Erosion of the surface
 Level 4 – Obvious & Significant Deterioration of the surface